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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,983	09/07/2004	Giovanni Baldi	NOTAR-011US	1792

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EXAMINER

BROWN, JENNINE M

ART UNIT.	PAPER NUMBER
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1755

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/506,983

Applicant(s)

BALDI ET AL.

Examiner

Jennine M. Brown

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/7/04; 12/13/04</u> | 6) <input type="checkbox"/> Other: ____ |

EL

Information Disclosure Statement

The information disclosure statements (IDS) submitted on 9/7/04 and 12/13/04 were considered by the examiner.

Claim Objections

Claims 1 and 6 objected to because of the following informalities: the use of the term "embedded pigment" where the term "encapsulated pigment" is more appropriate. Appropriate correction is required.

Claim Rejections - 35 USC § 101

Claims 11-13 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

If applicant intends to rewrite these claims properly, they will be subject to a restriction requirement because the applicant has already received an office action on the merits for the instant claims and will be withdrawn to a non elected invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2, 6-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it seems to read that the transparent material only consists of aggregate nanoparticles adhering to the surface of the labile chromophore but the language is unclear whether it is the transparent material alone, the refractory material is included or not. It is unclear what a labile chromophore is, is it an inorganic, and organic or polymer or seed material? It is also unclear what size the "nanoparticles" are supposed to possess. At times the nanoparticles sizes overlap with "particles".

Claim 2 recites the limitation "in which the labile chromophore is in turn in the form of a nanometric particle". There is insufficient antecedent basis for this limitation in the claim. Claim 1 does not state that the labile chromophore is a particle or that it is nanometric. Should applicant prefer to add additional limitations to the primary claim, the proper transitional phrase and language should be used such as "further comprising" or "further consisting".

Claim 6 is unclear as to what applicant is claiming because it is unclear what is being chosen to be consisting of the Markush group listed. Is it a chromophore, refractory material, transparent material or a combination of those?

Claim 7 recites the limitation "preparation of the nanometric particles ... the salts of the desired metals". There is insufficient antecedent basis for this limitation in the

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claim. Claim 1 is not drawn to a nanometric particle but an embedded pigment. Furthermore the primary claim is drawn to a different statutory category than the process claim of claim 7, therefore it is improper.

Claim 8 recites the limitation "first the nanometric particles of labile chromophore are prepared". There is insufficient antecedent basis for this limitation in the claim. The nanometric particles of claim 1 are part of the transparent material not the labile chromophore.

Claim 9 is indefinite because it depends from claim 1 and 7 at the same time. Dependent limitations are only supposed to depend from one previous claim. The known methodology would indicate that this claim is meant to be a Jepson type claim (i.e., an improvement over the prior art) and should be written as such if this is the case.

Claim 10 is indefinite because it is unclear whether the refractory oxide and the transparent oxide are to be the same or a different material chosen from the Markush group.

Claims 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim. Claims 11-13 provides for the use of the pigment in ceramics, textiles, porcelain stoneware, catalysts, cosmetic and plastic-rubber materials industry, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to

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encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. See also the 35 U.S.C. 101 rejection supra. These claims will not be further treated on the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 10 and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Fuller, et al. (US 6582764 B2).

See entire document. Fuller, et al. disclose a color effect material composed of a plurality of encapsulated substrate platelets and that it is known to make optically variable pigments as thin adherent translucent, light transmitting films or layers of metallic silica which are successively deposited under controlled conditions in controlled, selective thickness on central aluminum film or substrate (col. 1, l. 7-15). The substrate is disclosed as mica, aluminum oxide, bismuth oxychloride, boron nitride, iron oxide coated mica (ICM), silicon dioxide, titanium coated mica (TCM), copper flake, zinc flake, alloy of copper flake, alloy of zinc flake or any encapsulatable smooth platelet (col. 2, l. 40-53). The second layer is any organic material such as a polymer, metal or metal

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oxide (e.g. iron oxide or zinc oxide; col. 2, l. 54-col. 4, l. 20; col. 5, l. 4-13). Salts of metals can also be used (col. 5, l. 55-57). Methods of using said composition in various consumer goods and industries are disclosed but little patentable weight is given to these limitations. Fuller, et al. disclose said composition in printing inks, nail enamels, lacquers, thermoplastic and thermosetting materials, natural resins and synthetic resins, filaments, automotive paint formulation and cosmetics (col. 6, l. 32-col. 7, l. 15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller, et al. (US 6582764 B2) in view of applicant's specification.

Methods of making a color effect material comprising the composition supra are also disclosed (col. 7, l. 19-col. 10, l. 14) wherein a platelet material such as mica is

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suspended while stirring in aqueous medium, to the suspension a metal precursor is added via electroless deposition and a reducing agent, filtered, washed and dried (col. 5, l. 64-col. 6, l. 16). Applicant's state in their specification that the embedded pigments according to the invention may be prepared using known processes, in particular to use a polyol process, which is widely described in the literature, consisting of the use of a high boiling alcohol which makes it possible to work at high temperatures and to complex the particles being formed to prevent growth, in a known volume to which salts of the desired metal are added, heated to solubilize the salts which leads to the formation of the corresponding oxides and hydrolysis of the salts when the temperature is higher than 120 °C (page 4 lines 2-15). It would have been obvious to one of ordinary skill in the art to modify the known method to provide the embedded pigments claimed by applicant as a matter of routine experimentation and admitted prior art.

It would have been obvious to one of ordinary skill in the art to choose any encapsulatable smooth platelet as stated in column 2, line 44 of Fuller, et al., therefore the Markush groups of specific coatings:specific substrate in claim 6 of the instant application are envisioned by one of ordinary skill in the art provided that the size and properties of the materials are similar. A prima facie case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation

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that compounds similar in structure will have similar properties." In re Payne, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). See In re Papesch, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) (discussed in more detail below) and In re Dillon, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991) (discussed below and in MPEP § 2144) for an extensive review of the case law pertaining to obviousness based on close structural similarity of chemical compounds. See also MPEP § 2144.08, paragraph II.A.4.(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennine M. Brown whose telephone number is (571) 272-1364. The examiner can normally be reached on M-R 9:30 AM - 7:30 PM; Fridays off.

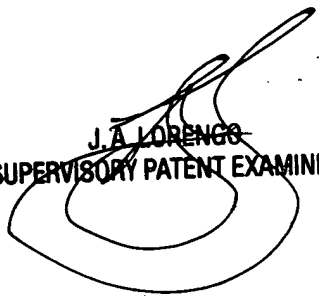
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SUPERVISORY PATENT EXAMINER